



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,619	01/24/2002	Ivan J. Baiges	10017070-1	2301

7590 01/24/2003

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

MOUTTET, BLAISE L

ART UNIT	PAPER NUMBER
----------	--------------

2853

DATE MAILED: 01/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,619

Applicant(s)

BAIGES, IVAN J.

Examiner

Blaise L Mouttet

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-6, 8, 10-12, 14-17, 19-24, 30, 31 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Gandy et al. US 5,376,957.

Gandy et al. discloses, regarding claim 1, a printing system for depositing marking fluid on print media, the printing system comprising:

a first marking engine (23) for depositing a first marking fluid only on a first portion of the print media; and

a second marking engine (25) for depositing a second marking fluid only on a second portion of the print media that is different from the first portion (the second portion is on the opposite side of the media, see figure 1).

Regarding claim 2, the printing system further includes a first mechanism (the first carriage, first rail and first drive cable) coupled to the first marking engine for moving the first marking engine (23) back and forth across the media so that the first marking engine (23) can deposit the first marking fluid only on the first portion of the print media (column 5, lines 49-63) and a second mechanism (the second carriage, second rail and second drive cable) coupled to the second marking engine (25) for moving the second marking engine (25) back and forth across the media so that the

Art Unit: 2853

second marking engine can deposit the second marking fluid only on the second portion of the print media (column 5, lines 49-63).

Regarding claim 3, the first and second mechanisms are separated by the paper path between them as indicated by figure 1.

Regarding claim 4, the first and second mechanisms are identical in that they are composed of the same elements (carriages, rails and drive cables).

Regarding claim 5, the mechanisms include linear guide rods (rails 26, 27), a drive motor and a drive element (drive cables) coupled between drive motor and the respective first and second marking engines, the drive motor through the drive element linearly moving the respective first and second marking engine along the linear guide rod back and forth across the print media (column 5, lines 49-63).

Regarding claim 6, the print media is a continuous web which is longer in the media feed axis than in the marking engine scan axis as shown in figure 1.

Regarding claim 8, the marking mechanisms operate in unison to print the second of the media in a mirror image with the first side (column 5, lines 60-63).

Regarding claim 10, common marking fluids are used in each of the marking engines (23, 25) (see column 7, lines 3-14 in which it is explained that cyan is used in both of the marking engines).

Regarding claim 11, different marking fluids are used in each of the marking engines. See column 7, lines 3-14 in which it is explained that cyan, magenta, yellow and black are used in each of the marking engines. Since plural colors are used in each of the marking engines a single color from a first of the marking engines (for example

Art Unit: 2853

yellow) is different than a single color from the second marking engine (for example magenta).

Regarding claim 12, the marking engines are identical (column 7, lines 3-4).

Regarding claim 14-17, the first and second marking engines are printheads (23, 25) that print in multiple different colors (column 7, lines 3-14).

Gandy et al. discloses, regarding claim 19, an inkjet printing system for depositing ink on print media, the printing system comprising:

a first mechanism (first carriage, first rail, first drive cable) for moving a first printhead assembly (23) relative to the print media so that the first printhead assembly (23) can deposit ink on a first portion of the print media (the first side) (column 5, lines 49-63); and

a second mechanism, separate from the first mechanism (second carriage, second rail, second drive cable), for moving a second printhead assembly (25), that is separate from the first printhead assembly (23), relative to the print media so that the second printhead assembly (23) can deposit ink on a second portion of the print media.

Regarding claim 20, the first printhead assembly (23) is moved to deposit ink only on the first portion (first side) of the media and the second printhead assembly is moved to deposit ink only of the second portion (second side) as described in relation to figure 1.

Regarding claims 21-24, the moving mechanisms operate in unison at the same time, same speed and same direction in order to print exactly the same images on opposite sides of the print media as shown and described in relation to figure 1.

Art Unit: 2853

Gandy et al. discloses, regarding claim 30, a method for performing a printing operation for depositing ink on print media, the method comprising:

providing a first movable printhead assembly (23) for depositing ink (column 5, lines 49-50);

providing a second movable printhead assembly (25) for depositing ink (column 5, lines 49-50); and

moving the first and second printhead assemblies back and forth across the print media so that the first printhead assembly (23) can deposit ink only on a first portion (first side) of the print media and the second printhead assembly (25) can deposit ink only on a second portion (second side) of the print media that is different from the first portion (column 5, lines 51-63).

Regarding claim 31, the printheads are moved in unison (column 5, lines 60-63).

Regarding claim 33, the print media is a continuous web which is longer in the media feed axis than in the marking engine scan axis as shown in figure 1.

2. Claims 1-7, 9, 11, 13, 15, 16, 19, 20, 25-30 and 32-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Simon et al. US 5,428,375.

Simon et al. discloses, regarding claim 1, a printing system for depositing marking fluid on print media, the printing system comprising:

a first marking engine (12b) for depositing a first marking fluid only on a first portion of the print media as shown and described in relation to figure 2; and

a second marking engine (12c) for depositing a second marking fluid only on a second portion of the print media that is different than the first portion as shown and described in relation to figure 2.

Regarding claim 2, the printing system further includes a first mechanism (31b) coupled to the first marking engine (12b) for moving the first marking engine (12b) back and forth across the print media in both the scanning direction and the paper feed direction so that the first marking engine (12b) can deposit the first marking fluid only on the first portion of the print media (column 2, lines 30-38) and a second mechanism (31c) coupled to the second marking engine (12c) for moving the second marking engine (12c) back and forth across the print media in both the scanning direction and the paper feed direction so that the second marking engine (12c) can deposit the second marking fluid only on the second portion of the print media (column 2, lines 30-38).

Regarding claims 3 and 4, the first (31b) and second (31c) mechanisms are spaced from one another and formed with identical components as shown and described in relation to figure 2.

Regarding claim 5, the mechanisms (31) include respective guide rods (34), stepper motors and drive elements (follower) as described in column 2, lines 39-42.

Regarding claims 6 and 7, the mechanisms (31) move the respective marking engines (26) in both the X direction which is along the media width direction and the Y direction which is along the media length direction as described in column 2, lines 26-38.

Art Unit: 2853

Regarding claim 9, the mechanisms (31) are independently adjusted to obtain alignment between the marking engines (12) as described in relation to column 2, line 67 - column 3, line 13.

Regarding claim 11, different colors of ink are taught to be supplied to the respective marking engines (column 3, lines 59-61).

Regarding claim 13, each marking engine includes a printhead for printing a single color marking fluid (column 2, lines 20-28).

Regarding claim 15, a first printhead is included in the first marking engine and a second printhead is included in the second marking engine as shown and described in relation to figure 2.

Regarding claim 16, different colors of ink are taught to be supplied to the respective printheads (column 3, lines 59-61).

Simon et al. discloses, regarding claim 19, an inkjet printing system for depositing ink on print media, the printing system comprising:

a first mechanism (31b) for moving a first printhead assembly (12b) relative to the print media so that the first printhead assembly can deposit ink on a first portion of the print media as shown and described in relation to figure 2; and

a second mechanism (31c), separate from the first mechanism (31b), for moving a second printhead assembly (12c), that is separate from the first printhead assembly (12b), relative to the print media so that the second printhead assembly can deposit ink on a second portion of the print media.

Regarding claim 20, the mechanisms (31) respectively move the printheads (12) so that they can print on their respective portions of print media without print overlap or print gaps as described in relation to column 2, line 67 - column 3, line 5.

Regarding claims 25-28, the mechanisms are operated at different times, different speeds and different directions in order to achieve proper alignment between the printheads as described in relation to column 2, line 49 - column 3, line 12.

Regarding claim 29, a third mechanism (31a), separate from the first and second mechanisms (31b, 31c), for moving a third printhead (12a), separate from printheads (12b, 12c) prints on a third portion different from the first and second portions.

Simon et al. discloses, regarding claim 30, a method for performing a printing operation for depositing ink on print media, the method comprising:

- providing a first movable printhead assembly (12b) for depositing ink (column 2, lines 20-29);

- providing a second movable printhead assembly (12c) for depositing ink (column 2, lines 20-29);

- moving the first and second printhead assemblies (12b, 12c) back and forth across the print media so that the first printhead assembly (12b) can deposit ink only on a first portion of the media and the second printhead assembly (12c) can deposit ink only on a second portion of the print media that is different than the first portion (column 2, lines 29-38).

Regarding claim 32, the printhead assemblies (12) are moved independently to achieve alignment as described in column 2, line 49 - column 3, line 13.

Regarding claims 33 and 34, the mechanisms (31) move the respective marking engines (26) in both the X direction which is along the media width direction and the Y direction which is along the media length direction as described in column 2, lines 26-38.

3. Claims 1-4, 9, 18-20 and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Chapin et al. US 5,838,343.

Chapin et al. discloses, regarding claim 1, a printing system for depositing marking fluid on print media, the printing system comprising:

a first marking engine (1) for depositing a first marking fluid only on a first portion of the print media as shown and described in relation to figure 1; and

a second marking engine (2) for depositing a second marking fluid only on a second portion of the print media that is different than the first portion as shown and described in relation to figure 1.

Regarding claim 2, the printing system further includes a first mechanism (respective shaft 56 and sliding mechanisms as described in column 3, lines 46-53) coupled to the first marking engine (1) for moving the first marking engine (1) back and forth across the print media so that the first marking engine (1) can deposit the first marking fluid only on the first portion of the print media and a second mechanism (respective shaft 56 and sliding mechanisms as described in column 3, lines 46-53) coupled to the second marking engine (2) for moving the second marking engine (2) back and forth across the print media so that the second marking engine (12c) can

deposit the second marking fluid only on the second portion of the print media as shown and described in relation to figure 1.

Regarding claims 3 and 4, the first and second mechanisms are spaced from one another and formed with identical components as shown and described in relation to figure 1.

Regarding claim 9, the mechanisms are each independently operated so as to move the associated marking engines to an inactive position as described in column 2, line 65 - column 3, line 5.

Regarding claim 18, thermal bubble jet technology is taught to be utilized in the ink ejection (column 1, lines 17-18).

Chapin et al. discloses, regarding claim 19, an inkjet printing system for depositing ink on print media, the printing system comprising:

a first mechanism (respective shaft 56 and sliding mechanisms as described in column 3, lines 46-53) for moving a first printhead assembly (1) relative to the print media so that the first printhead assembly can deposit ink on a first portion of the print media as shown and described in relation to figure 1; and

a second mechanism (respective shaft 56 and sliding mechanisms as described in column 3, lines 46-53), separate from the first mechanism, for moving a second printhead assembly (2), that is separate from the first printhead assembly (1), relative to the print media so that the second printhead assembly can deposit ink on a second portion of the print media.

Regarding claim 20, the mechanisms respectively move the printheads so that they can print on their respective portions of print media as shown and described in relation to figure 1 and column 2, lines 29-35.

Regarding claims 25-28, the mechanisms are independently utilized at different times, different speeds and different directions in order to move the individual printheads into the cleaning positions as shown and described in relation to figure 1.

Regarding claim 29, a third mechanism, separate from the first and second mechanisms, for moving a third printhead (3), separate from printheads (1, 2) prints on a third portion different from the first and second portions as shown and described in relation to figure 1.

Additional Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Akiyama et al. US 6,000,781 discloses different color marking engines movable to print on different portions of print media.

Sette et al. US 6,318,840 discloses different marking engines movable to print on different swaths of print area.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet whose telephone number is

Art Unit: 2853


(703) 305-3007. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow, Jr. Art Unit 2853, can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet January 21, 2003

Bm 1/21/2003


HAI PHAM
PRIMARY EXAMINER